Branigan, Terence

From:	Anson Keller <akeller@ofwlaw.com>
Sent:	Wednesday, October 25, 2017 7:00 AM
To:	Nigel Cooney; Beth Admire; Branigan, Terence; Rog, Morgan
Cc:	Gary H. Baise; Anson Keller; lashack@cityofjeff.net
Subject:	FW: Supplement to October 20 Letter to DOJ
Attachments:	DWWTP and CEHRC Opertions Strategy.pdf

Dear Everybody,

I attach a clarification on how the proposed new High Rate Clarifier will be used. If you have any questions, please call or e-mail me.

Anson Keller

From: Len Ashack [mailto:lashack@CityofJeff.net]
Sent: Tuesday, October 24, 2017 4:39 PM
To: Anson Keller; Gary H. Baise
Cc: Jorge Lanz ; Dale Orem (dorem@wesbanco.com); Bill Saegesser (bill@SaegesserEngineering.com); billsaegesser@gmail.com
Subject: Supplement to October 20 Letter to DOJ

Anson/Gary
Attached please find an Attachment which will hopefully clarify on how the Chemically Enhanced High Rate Clarifier will be used in both dry and wet weather. If you would forward this document to Nigel and the other folks who were cc'd in the 10/20/17 response letter, I would appreciate it and hopefully avoid some questions down the road.
Thank you.

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River Ridge Commerce Center
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DOWNTOWN WASTEWATER TREATMENT PLANT (DWWTP) AND MAJOR LIFT STATIONS

The DWWTP has three (3) major lift stations which pump to the DWWTP. There are no gravity sewers which flow to the treatment plant. The lift stations are as follows.

Tenth Street Lift Station (TSLS)

The Lift Station has five 7,571 gpm pumps with a firm capacity of 40 MGD and a minimum peak Capacity of 50 MGD.

There are two (2) force mains from the lift station - a 24-in and a 36-in. The 24-in force main is used for dry weather flow. This force main from the lift station transitions to a 30-in force main before it enters the DWWTP as shown in **Attachment 1.**

The 36-in force main is activated when the flow exceeds a rate of 35 MGD for 5 minutes, the 36-in force main is activated by automatically opening the valve on the 36-in force main which allows sewage to be pumped to the DWWTP.

Mill Creek Lift Station

The Lift Station has three (3) 2,500 gpm pumps with a peak pumping capacity of 8.0 MGD. There is a 24-in force main which pumps directly into the headworks of the DWWTP.

Spring Street Lift Station

The Lift Station has three (3) 2,100 gpm pumps with a peak pumping capacity of 6.0 MGD. There is a 24-in force main which pumps directly into the head works of the DWWTP.

In 2011, the headworks of the DWWTP was modified to have each of the four (4) force mains from the major lift stations enter the headworks structure separately as shown in **Attachment 2.**

CURRENT OPERATION OF THE TENTH STREET LIFT STATION (TSLS)

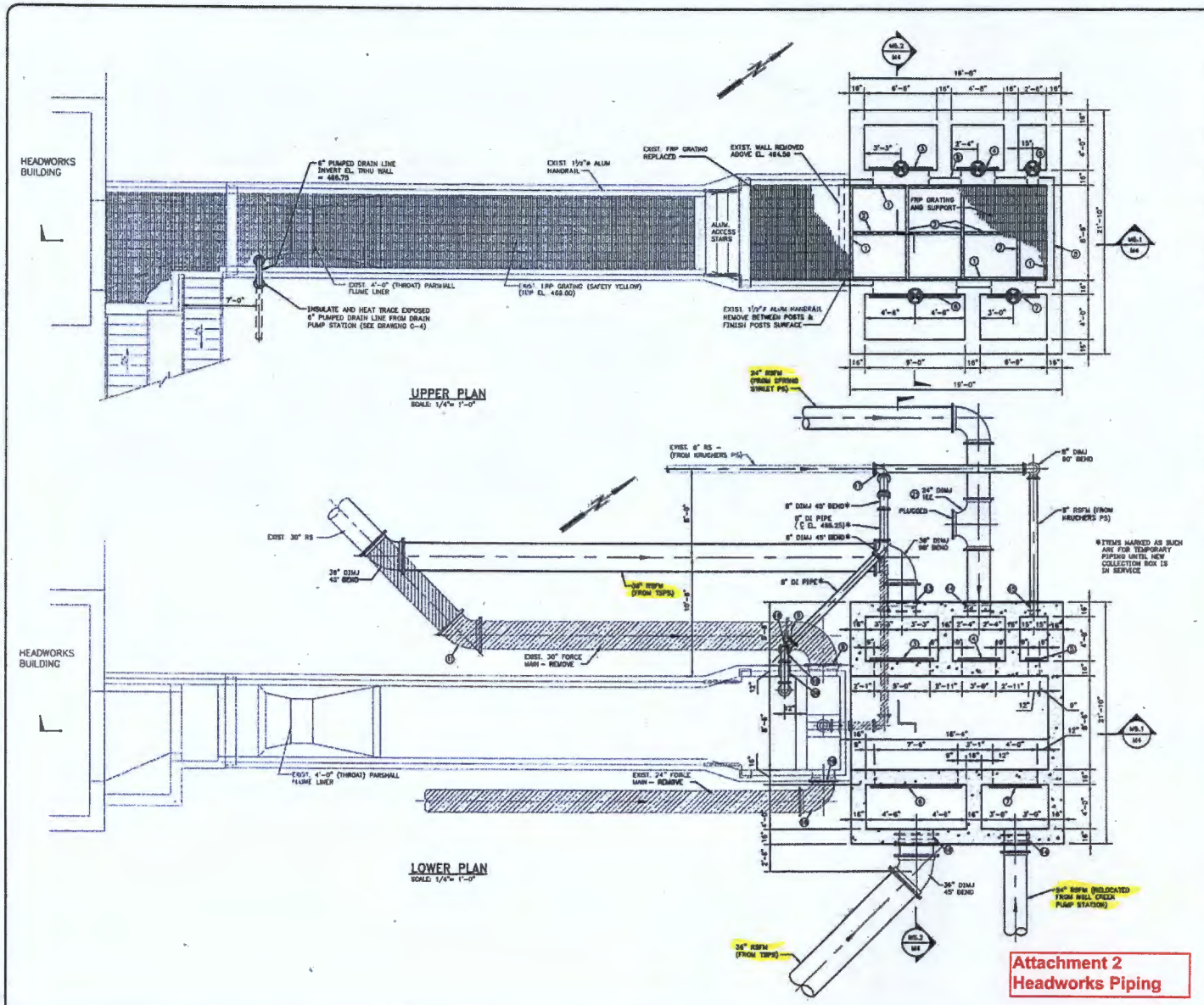
During dry weather, the TSLS utilizes the 24-in force main to pump the flow from the combined sewer service area. During precipitation events, if the flow to the DWWTP is below 50 MGD, the lift station will pump whatever flow reaches the wet well. When the flow being pumped to the DWWTP reaches a rate of 50 MGD for 5 minutes, the sluice gates on the influent line at the lift station will begin close, limiting the flow to the lift station to maintain a flow rate at the DWWTP of 50 MGD. Most often, the flow from the TSLS is limited to 36 MGD to allow for the Mill Creek and Spring Street Lift Stations to pump at their capacity of 14. MGD.

If the level in the lift station's wet well reaches 16 feet, the influent sluice gates will close to protect the floor of the pipe gallery, as the floor does not have the structural integrity to withstand the upward force of the water in the wet well. The sluice gates will reopen when the level in the wet well recedes to 11 feet.

PROPOSED OPERATION OF THE CHEMICALLY ENHANCED HIGH RATE CLARIFIER (CEHRC) SYSTEM

During dry weather, the CEHRC will be used for phosphorus removal for flows below 50 MGD. When the flow to the treatment plant reaches 50 MGD for a defined length of time, a valve in a new valve structure on the 36-in force main from the TSLS will open and a valve on the secondary effluent will close. This sequence will allow flow from the 36-in force main to receive treatment from the CEHRC and mix with the flow from the biological system. The biological system will still treat 50 MGD while the excess flow from the TSLS which would normally overflow through CSO 018 will be rerouted through the CEHRC to receive chemical treatment. During the disinfection season (April 1 to October 31) all of the flow (the 50 MGD from the biological treatment system and the excess chemically treated flow) will be disinfected by the UV system. The flow of the combined effluent will be measured and samples will be taken and analyzed as per the NPDES permit requirements.


Spring St LS 24" FM
10th St LS 30" FM
Mill Creek LS 24" FM
10th St LS 36" FM
10th St LS 30" FM
10th St LS 24" FM
Greenwood Rd
D.L. Motley Way
Bates-Bowyer Ave
Dutch Ln
Riddle St
Champion Rd
12th St
15th St E
Martin Cir
Thomas V Bryant St
14th St E
Luther Cir
Meigs Ave
12th St E
DWWTP Influent Force Mains
Attachment 1



Attachment 2
Headworks Piping

NOTES

1. 2½"x2½"x¼" ALUM ANGLE (SURFACE MTD.)
2. C10x30 (8.30#/) ALUM [
3. 66"WIDE x 48"HIGH HANDWHEEL OPERATED WEIR GATE (FACE MOUNTED). TOP OF WEIR (FULLY RAISED, SHUT-OFF POSITION) EL. 471.58, TOP OF WEIR (FULLY LOWERED), EL. 467.58.
4. 36"WIDE x 48"HIGH HANDWHEEL OPERATED WEIR GATE (FACE MOUNTED). TOP OF WEIR (FULLY RAISED, SHUT-OFF POSITION) EL. 471.58, TOP OF WEIR (FULLY LOWERED), EL. 467.58.
5. 12"WIDE x 48"HIGH HANDWHEEL OPERATED WEIR GATE (FACE MOUNTED). TOP OF WEIR (FULLY RAISED, SHUT-OFF POSITION) EL. 471.58, TOP OF WEIR (FULLY LOWERED), EL. 467.58.
6. 96"WIDE x 48"HIGH HANDWHEEL OPERATED WEIR GATE (FACE MOUNTED). TOP OF WEIR (FULLY RAISED, SHUT-OFF POSITION) EL. 471.58, TOP OF WEIR (FULLY LOWERED), EL. 467.58.
7. 48"WIDE x 48"HIGH HANDWHEEL OPERATED WEIR GATE (FACE MOUNTED). TOP OF WEIR (FULLY RAISED, SHUT-OFF POSITION) EL. 471.58, TOP OF WEIR (FULLY LOWERED), EL. 467.58.
8. INSTALL 4" ALUM TOEPLATE ALONG NEW HANDRAIL.
9. REMOVE EXIST. 30" DIMJ-PE 90° BEND & INSTALL 30" DIMJ PLUG IN EXIST. 30" DI WALL PIPE.
10. REMOVE EXIST. 24" DIMJ-PE 90° BEND & TEMPORARY PLUG UNTIL CONCRETE FILL IS PLACED.
11. REMOVE EXIST. DI PIPING & FITTING.
12. REMOVE EXIST. 8" DI PIPE AND INSTALL 8" DIMJ IN EXIST. 8" DIMJ WALL PIPE.
13. 30" DIMJ-PE WALL PIPE, 10" LG (OVERALL LENGTH) 'S' MJ TAPPED FOR STUD BOLTS (± EL. 453.25)
14. 24" DIMJ-PE WALL PIPE, 10" LG (OVERALL LENGTH) 'S' MJ TAPPED FOR STUD BOLTS (± EL. 453.25)
15. 8" DIMJ-PE WALL PIPE, 10" LG (OVERALL LENGTH) 'S' MJ TAPPED FOR STUD BOLTS (± EL. 453.25)
16. 36" DIMJ-PE WALL PIPE, 10" LG (OVERALL LENGTH) 'S' MJ TAPPED FOR STUD BOLTS (± EL. 453.25)
17. ROTATE EXIST. 8" DIMJ 90° BEND 45° UP*
18. 8" DIMJ 90° BEND*
19. 8" DIMJ 90° BEND (± EL. 488.66)*
20. CORE 12"ø HOLE THRU EXIST. CONC. WALL (± EL. 488.66), INSERT 8" DI FLG-PE PIPE 2'-0" LG, CLOSE OPENING W/ INTERLOCKING LINK PIPE SEALS AND CONNECT 8" DI 90° ELL TO FLG.*
21. TEE INSTALLED TO PROVIDE TEMPORARY CONNECTION FOR STARTUP OF SPRING STREET P.S. TEMPORARY PIPING TO HEADWORKS BLDG. REMOVED AFTER CHANNEL MODIFICATIONS WERE COMPLETE & TEE WAS PLUGGED.

COATING SCHEDULE

SURFACE	COATING SYSTEM
SUBMERGED FERROUS METAL (NON-POTABLE)	A
NON-SUBMERGED FERROUS METAL	C
NON-SUBMERGED FACTORY PRIMED STEEL	Y
SUBMERGED NON-FERROUS METAL	H
CONCRETE (INSIDE WALLS/SLAB OF CHANNEL)	SECTION 09840

REFER TO SPECIFICATION SECTION 09840 - SPECIAL COATINGS FOR DESCRIPTIONS OF COATING SYSTEMS AND OTHER REQUIREMENTS.

RECORD DRAWING

THIS DRAWING HAS BEEN REVISED FROM THE ORIGINAL CONTRACT DRAWING BASED ON DATA SUPPLIED BY THE CONTRACTOR TO SHOW MAJOR CHANGES MADE DURING CONSTRUCTION. NO WARRANTY IS MADE FOR COMPLETE ACCURACY OF THIS DRAWING.

HDR ENGINEERING, INC.

DATE 11/15/06 BY

NOTE: THE ORIGINAL CONSTRUCTION DRAWING WITH ISSUE DATE FEBRUARY 15, 2011 HAD THE P.E. SEAL OF STEPHEN M HARVEY NUMBER 17872 AFFIXED.

HDR Engineering, Inc.
Lexington, Kentucky · Louisville, Kentucky · Chattanooga, Tennessee · Columbus, Ohio · Cincinnati, Ohio

WASTEWATER TREATMENT PLANT
PEAK CAPACITY & MISCELLANEOUS IMPROVEMENTS
JEFFERSONVILLE, INDIANA

INFLUENT CHANNEL MODIFICATION PLANS

SCALE: 1/4"= 1'- 0"
DATE: FEB. 2011
JOB NO.: 102661
DESIGNER: TRS
DRAWN: CPL
CHECKED: SWC
Q/C:

OWNER APPROVAL:
BY:
TITLE:

REVISIONS:
NO.: DATE:

DRAWING:
M-4
OF 22